

WHAT IS CLAIMED IS:

1. A method for telephony call management comprising:
maintaining dial plan data comprising a plurality of route pattern definitions,
each route pattern definition comprising one or more sub-strings each having an
5 associated tag;
maintaining configured routing data comprising a configured route pattern
including an expansion indicator;
accessing the configured routing data to read the configured route pattern;
identifying the expansion indicator in the configured route pattern;
10 accessing the dial plan data responsive to identifying the expansion indicator;
and
while accessing the dial plan data, for each of the route pattern definitions in
the dial plan data:
generating a route pattern based on the one or more sub-strings for the
15 route pattern definition; and
entering the generated route pattern into a live dial database for use in
routing calls placed by users.
2. The method of Claim 1, wherein:
20 the dial plan data implements the North American Numbering Plan; and
the live dial database specifies routing of telephone calls from managed voice
over Internet protocol (VoIP) devices.
3. The method of Claim 1, wherein the dial plan data further comprise a
25 text file listing each of the route pattern definitions.
4. The method of Claim 1, wherein:
the configured routing data further comprise a route filter; and
30 the method further comprises, for each of the route pattern definitions in the
dial plan data, generating the route pattern and entering the generated route pattern
into the live dial database if the route pattern definition satisfies the route filter.

5. The method of Claim 4, wherein the route filter specifies valid route patterns using the associated tags.

6. The method of Claim 1, wherein the configured routing data further
5 comprise digit discard instructions, the digit discard instruction specifying digits to retain when routing calls placed by users, the digits specified using the associated tags.

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7. A telephony call management apparatus comprising:

a memory storing a call management application, a live dial database, configured routing data comprising at least one configured route pattern that includes an expansion indicator, and dial plan data comprising a plurality of route pattern definitions, each route pattern definition comprising one or more sub-strings each having an associated tag; and

a processor operable, when executing the call management application, to access each route pattern in the configured routing data, to identify the expansion indicator, and, responsive to identifying the expansion indicator, to access the dial plan data and, for each of the route pattern definitions in the dial plan data, to generate a route pattern based on the route pattern definition and to enter the generated route pattern into the live dial database.

8. The apparatus of Claim 7, wherein:

the dial plan data implements the North American Numbering Plan; and
the live dial database specifies routing of telephone calls from managed voice over Internet protocol (VoIP) devices.

9. The apparatus of Claim 7, wherein the dial plan data further comprise a

text file listing each of the route pattern definitions.

10. The apparatus of Claim 7, wherein:

the configured routing data further comprise a route filter; and
the processor is further operable, for each of the route pattern definitions in the dial plan data, to generate the route pattern and to enter the generated route pattern into the live dial database if the route pattern definition satisfies the route filter.

11. The apparatus of Claim 10, wherein the route filter specifies valid route patterns using the associated tags.

12. The apparatus of Claim 7, wherein the configured routing data further comprise digit discard instructions, the digit discard instruction specifying digits to

retain when routing calls placed by users, the digits specified using the associated tags.

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13. Logic for telephony call management, the logic encoded in media and operable when executed to:

maintain dial plan data comprising a plurality of route pattern definitions, each route pattern definition comprising one or more sub-strings each having an associated tag;

maintain configured routing data comprising a configured route pattern including an expansion indicator;

access the configured routing data to read the configured route pattern;

identify the expansion indicator in the configured route pattern;

access the dial plan data responsive to identifying the expansion indicator; and while accessing the dial plan data, for each of the route pattern definitions in the dial plan data:

generate a route pattern based on the route pattern definition; and

enter the generated route pattern into a live dial database for use in routing calls placed by users.

14. The logic of Claim 13, wherein:

the dial plan data implements the North American Numbering Plan; and

the live dial database specifies routing of telephone calls from managed voice over Internet protocol (VoIP) devices.

15. The logic of Claim 13, wherein the dial plan data further comprise a text file listing each of the route pattern definitions.

16. The logic of Claim 13, wherein:

the configured routing data further comprise a route filter; and

the logic is further operable, for each of the route pattern definitions in the dial plan data, to generate the route pattern and to enter the generated route pattern into the live dial database if the route pattern definition satisfies the route filter.

17. The logic of Claim 16, wherein the route filter specifies valid route patterns using the associated tags.

18. The logic of Claim 13, wherein the configured routing data further comprise digit discard instructions, the digit discard instruction specifying digits to retain when routing calls placed by users, the digits specified using the associated tags.

19. A telephony call management apparatus comprising:
- means for maintaining dial plan data comprising a plurality of route pattern definitions, each route pattern definition comprising one or more sub-strings each having an associated tag;
- 5 means for maintaining configured routing data comprising a configured route pattern including an expansion indicator;
- means for accessing the configured routing data to read the configured route pattern;
- means for identifying the expansion indicator in the configured route pattern;
- 10 and
- means for accessing the dial plan data responsive to identifying the expansion indicator and, for each of the route pattern definitions in the dial plan data:
- generating a route pattern based on the route pattern definition; and
- entering the generated route pattern into a live dial database for use in
- 15 routing calls placed by users.

20. A telephony call management apparatus for routing telephony communications of voice over Internet protocol (VoIP) devices, the apparatus comprising:

- 5 a memory storing a call management application, a live dial database, configured routing data comprising a route filter and a configured route pattern that includes an expansion indicator, and dial plan data comprising a plurality of route pattern definitions, each route pattern definition comprising one or more sub-strings each having an associated tag; and
- 10 a processor operable, when executing the call management application, to access each route pattern in the configured routing data, to identify the expansion indicator, and, responsive to identifying the expansion indicator, to access the dial plan data and, for each of the route pattern definitions in the dial plan data, to generate a route pattern based on the route pattern definition and to enter the generated route pattern into the live dial database if the route pattern definition satisfies the route
- 15 filter, wherein the route filter specifies valid route patterns using the associated tags.